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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,982	08/21/2001	Todd Lagimonier	003636.0115	6823

7590 05/08/2009
MANELLI DENISON & SELTER PLLC
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2000 M Street NW
Suite 700
Washington, DC 20016

EXAMINER

PYZOCHA, MICHAEL J

ART UNIT	PAPER NUMBER
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2437

MAIL DATE	DELIVERY MODE
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05/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/932,982

Applicant(s)

LAGIMONIER ET AL.

Examiner

MICHAEL PYZOSHA

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2437

Period for Reply
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-43 are pending.
2. Amendment filed 03/30/2009 has been received and considered.

5 ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over
15 Milliken (US 6978384) in view of Mangin (US 20010017844).

As per claims 1, 10, 19, 28, and 36, Milliken discloses determining a largest
nonce value yet seen from a plurality of nonce values of out-of-order messages (see
column 8 lines 64-65); comparing a nonce value of a received message with said
largest nonce value yet seen (see column 8 line 65); comparing said nonce value to an
20 acceptance window in response to said nonce value not exceeding said largest nonce
value yet seen (see column 9 lines 31-453); adjusting a range of acceptable nonce
values within said acceptance window (see column 3 lines 56-61 and column 9 lines 1-
30); rejecting said received message in response to said nonce value falling outside
said acceptance window; in a secure peer to peer communication (see column 9 lines
25 31-42).

Milliken fails to explicitly disclose adjusting the size of the window based on the largest nonce value yet seen.

However, Mangin teaches a sliding window with a varying size based on the largest nonce value yet seen (see paragraph [0028] where the last transmitted

5 sequence number is the largest nonce value yet seen).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to vary the size of the window in the Milliken system.

Motivation to do so would have been to control the flow of a TCP connection (see Mangin paragraph [0026]).

10 As per claims 2, 3, 11, 13, 20, 21, 29, and 37, the modified Milliken and Mangin system discloses designating said nonce value as said largest nonce value yet seen in response to said nonce value exceeding said largest nonce value yet seen (see Milliken column 9 lines 1-30).

15 As per claims 4, 12, 22, 30, and 38, the modified Milliken and Mangin system discloses adjusting an acceptance window based on said nonce value exceeding said largest nonce value yet seen (see Milliken column 9 lines 1-30).

As per claims 5, 7, 14, 16, 23, 25, 32, 34, 40, and 42, the modified Milliken and Mangin system discloses designating said received message as a replay attack (see Milliken column 3 lines 50-67).

20 As per claims 6, 8, 15, 17, 24, 26, 33, and 41, the modified Milliken and Mangin system discloses comparing said nonce value to a window mask value in response to said nonce value falling within said acceptance window; rejecting said received

message in response to an outcome of said comparison of said nonce value to said window mask value being true (see Milliken column 9 lines 31-53).

As per claims 9, 18, and 27, the modified Milliken and Mangin system discloses designating said nonce value as a largest nonce value seen (see Milliken column 9 lines 1-30).

As per claims 31 and 39, the modified Milliken and Mangin system discloses said secure communication module is further configured to reject said received packet in response to said nonce value falling outside said filter (see Milliken column 9 lines 31-53).

As per claims 35 and 43, the modified Milliken and Mangin system discloses said secure communication module is further configured to reject said received packet in response to said nonce value fails to fall within said filter and said secure communication module is further configured to designate said received packet as part of a replay attack (see Milliken column 3 lines 50-67 and column 9 lines 31-53).

Response to Arguments

5. Applicant's arguments filed 03/30/2009 have been fully considered but they are not persuasive. Applicant argues that Milliken teaches away from adjusting a size of a window based on a largest nonce value yet seen; a combination of Milliken and Mangin would change the principle operation; and Mangin fails to teach determining the largest nonce value yet seen and adjusting the size of a range of acceptable nonce values within a single acceptance window.

With respect to Applicant's argument that that Milliken teaches away from adjusting a size of a window based on a largest nonce value yet seen; Milliken teaches adjusting the window size based on data rates and data delays while Mangin teaches basing the window size on the last (largest) sequence number and, among other things, the value "Lim" which is based on maximum segment size which relates to both data rates and data delays. Therefore, it would be obvious to replace or additionally use the method of Mangin with the method of Milliken. Furthermore, it is well know to substitute one known element for another when it yields predictable results. In this situation, the predictable result of adjusting a window would occur with a simple substitution of the Mangin method for window adjustment in place of the Milliken method. Therefore, Milliken does not teach away from adjusting the window size based on a largest nonce value yet seen.

With respect to Applicant's argument that a combination of Milliken and Mangin would change the principle operation Milliken teaches adjusting the window size based on data rates and data delays while Mangin teaches basing the window size on the last (largest) sequence number and, among other things, the value "Lim" which is based on maximum segment size which relates to both data rates and data delays. Therefore, it would be obvious to replace or additionally use the method of Mangin with the method of Milliken. Furthermore, it is well know to substitute one known element for another when it yields predictable results. In this situation, the predictable result of adjusting a window would occur with a simple substitution of the Mangin method for window

adjustment in place of the Milliken method. Therefore, a combination would not change the principle operation of the cited references.

With respect to Applicant's argument that Mangin fails to teach determining the largest nonce value yet seen and adjusting the size of a range of acceptable nonce values within a single acceptance window; in paragraphs [0078] through [0081] Mangin discloses determining the largest nonce value yet seen by reading it from the NoSeqData value in memory and then adjusting the window size based on this value. In Milliken, a window of a certain size gives a range of acceptable values, when combined with the teachings of Mangin, the size of the window and therefore the range of acceptable values is adjusted based on the largest nonce value yet seen. Therefore, the combination teaches determining the largest nonce value yet seen and adjusting the size of a range of acceptable nonce values within a single acceptance window.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PYZOSHA whose telephone number is

5 (571)272-3875. The examiner can normally be reached on Monday-Thursday, 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-

10 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/M. P./
Examiner, Art Unit 2437

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/Emmanuel L. Moise/

Supervisory Patent Examiner, Art Unit 2437